APPENDIX A

PLANT SPECIES OBSERVED

Appendix A
PLANT SPECIES OBSERVED

FAMILY	SCIENTIFIC NAME†*	COMMON NAME	HABITAT**
PTERIDOPHYTES			
Polypodiaceae	*Polypodium californicum*	California polypody	DCSS
Selaginellaceae	*Selaginella cinerascens*†	ashy spike-moss	NNG, DCSS
GYMNOSPERMS			
Pinaceae	*Pinus* sp.*	pine	ORCH
DICOTYLEDONES			
Anacardiaceae	*Malosma laurina*	laurel sumac	DCSS, ORCH
	Rhus integrifolia	lemonadeberry	DCSS
	*Schinus molle**	Peruvian pepper tree	DCSS, NNV
	Toxicodendron diversilobum	poison oak	DCSS, CLOW, SCLORF‡
Apiaceae	*Foeniculum vulgare**	fennel	DCSS, NNG
Araliaceae	*Hedera* sp.*	Ivy	SCLORF‡
Asteraceae	*Artemisia californica*	California sagebrush	DCSS
	Baccharis pilularis	coyote brush	DCSS, CBS
	*Carduus pycnocephalus**	Italian thistle	NNG, ORCH
	*Centaurea melitensis**	star thistle	NNG
	Deinandra fasciculata	fascicled tarplant	DCSS
	Encelia californica	California encelia	DCSS
	Eriophyllum confertiflorum	golden-yarrow	DCSS
	Gnaphalium californicum	California everlasting	DCSS, CLOW
	*Hedypnois cretica**	Crete hedypnois	NNG
Brassicaceae	*Brassica* sp.*	mustard	DCSS, NNG
	*Raphanus sativus**	wild radish	DCSS
Cactaceae	*Opuntia ficus-indica**	Indian-fig	NNG, SCLORF‡
	Opuntia littoralis	coastal prickly pear	DCSS
Caprifoliaceae	*Lonicera subspicata* var. *denudata*	San Diego honeysuckle	DCSS, CLOW
	Sambucus mexicana	blue elderberry	DCSS, CBS, CLOW, ORCH
Chenopodiaceae	*Salsola tragus**	Russian thistle	NNG
Convolvulaceae	*Calystegia macrostegia* ssp. *arida*	finger-leaf morning-glory	NNG
Cucurbitaceae	*Marah macrocarpus*	wild cucumber	DCSS
Cuscutaceae	*Cuscuta* sp.	dodder	DCSS

Appendix A (cont.)
PLANT SPECIES OBSERVED

FAMILY	SCIENTIFIC NAME†*	COMMON NAME	HABITAT**
DICOTYLEDONES (cont.)			
Euphorbiaceae	*Chamaesyce polycarpa*	desert sand mat	DCSS
	Eremocarpus setigerus	dove weed	NNG
	*Ricinus communis**	castor-bean	ORCH
Fabaceae	*Lotus scoparius* var. *scoparius*	coastal deerweed	DCSS, NNG
Fagaceae	*Quercus agrifolia* var. *agrifolia*	coast live oak	DCSS, NNV, CLOW, ORCH
Geraniaceae	*Erodium cicutarium**	red-stem filaree	NNG
	*Erodium moschatum**	green-stem filaree	NNG
	Geranium sp.*	geranium	NNV
Grossulariaceae	*Ribes speciosum*	fuschia-flower gooseberry	DCSS
Lamiaceae	*Salvia mellifera*	black sage	DCSS, CBS
Lauraceae	*Persea americana**	avocado	ORCH
Malvaceae	*Malacothamnus fasciculatus*	chaparral mallow	DCSS
Myrtaceae	*Eucalyptus* sp.*	eucalyptus	ORCH
Nyctaginaceae	*Mirabilis californica*	wishbone bush	DCSS
Oleaceae	*Olea europaea**	olive	DCSS, NNV
	Fraxinus sp.*	Ash	SCLORF‡
Polygonaceae	*Eriogonum fasciculatum* ssp. *fasciculatum*	California buckwheat	DCSS, NNG
	*Rumex crispus**	curly dock	NNG
Primulaceae	*Anagallis arvensis**	scarlet pimpernel	NNG, DCSS
Rosaceae	*Heteromeles arbutifolia*	toyon	DCSS, NNG, ORCH, SCLORF‡
Rubiaceae	*Galium aparine**	goosegrass	ORCH
	Galium sp.	bedstraw	DCSS
Scrophulariaceae	*Keckiella cordifolia*	heart-leaved penstemon	DCSS
	Mimulus aurantiacus	monkey-flower	DCSS
	Scrophularia californica ssp. *floribunda*	California figwort	DCSS
Solanaceae	*Nicotiana glauca**	tree tobacco	DCSS
	*Solanum triflorum**	nightshade	NNG
Verbenaceae	*Verbena lasiostachys*	verbena	NNG
MONOCOTYLEDONES			
Arecaceae	*Washingtonia robusta**	Washington palm	ORCH
Asparagaceae	*Asparagus officinalis* ssp. *officinalis**	smilax	NNV

Appendix A (cont.)
PLANT SPECIES OBSERVED

FAMILY	SCIENTIFIC NAME†*	COMMON NAME	HABITAT**
MONOCOTYLEDONES (cont.)			
Cyperaceae	*Cyperus alternifolius**	umbrella sedge	SCLORF‡
Iridaceae	*Iris* sp.*	iris	NNG
	Sisyrinchium bellum	blue-eyed grass	NNG
Liliaceae	*Asphodelus fistulosus**	hollow-stem asphodel	ORCH
Poaceae	*Avena barbata**	slender wild oat	NNG
	*Avena fatua**	wild oat	NNG
	*Bromus diandrus**	common ripgut grass	NNG, CLOW
	*Bromus hordeaceus**	soft chess	NNG
	Bromus madritensis ssp. *rubens**	foxtail chess	NNG
	*Cynodon dactylon**	Bermuda grass	NNG, DCSS
	*Lolium multiflorum**	Italian ryegrass	NNG
	Nassella lepida	foothill needlegrass	DCSS
	*Vulpia myuros**	fescue	ORCH
Typhaceae	*Typha latifolia*	cat-tail	FWM‡

†Denotes sensitive species
*Non-native species
**Habitat Acronyms: CBS = coyote brush scrub; CLOW = coast live oak woodland; DCSS = Diegan coastal sage scrub; FWM = freshwater marsh; NNG = non-native grassland; NNV = non-native vegetation; ORCH = orchard, SCLORF = southern coast live oak riparian forest.
‡Freshwater marsh and southern coast live oak riparian forest occur off site.

APPENDIX B

ANIMAL SPECIES OBSERVED OR DETECTED

Appendix B
ANIMAL SPECIES OBSERVED OR DETECTED

SCIENTIFIC NAME	COMMON NAME
INVERTEBRATES	
Lepidoptera – Butterflies	
Anthocharis sara	Sara orangetip
Apodemia mormo virgulti	Behr's metalmark
Erynnis funeralis	funereal duskywing
Glaucopsyche lygdamus australis	southern blue
Incisalia augustinus	brown elfin
Pontia protodice	common white
Vannessa atalanta	red admiral
Hymenoptera – Ants, wasps, bees	
Apis mellifera	honeybee
VERTEBRATES	
Reptile	
Iguanidae – Iguanids	
Sceloporus occidentalis	western fence lizard
Birds	
Cathartidae – New World (American) Vultures	
Cathartes aura†	turkey vulture
Accipitridae – Hawks, Old World Vultures, Kites, Harriers, and Eagles	
Buteo lineatus†	red-shouldered hawk
Buteo jamaicensis	red-tailed hawk
Elanus leucurus†	white-tailed kite
Odontophoridae – Quails and Bobwhite	
Callipepla californica	California quail
Columbidae – Pigeons and Doves	
Zenaida macroura	mourning dove
Cuculidae – Cuckoos and Relatives	
Geococcyx californianus	greater roadrunner
Apodidae – Swifts	
Aeronautes saxatalis	white-throated swift

Appendix B (cont.)
ANIMAL SPECIES OBSERVED OR DETECTED

SCIENTIFIC NAME†	COMMON NAME
VERTEBRATES (cont.)	
Birds (cont.)	
Trochilidae – Hummingbirds	
Calypte anna	Anna's hummingbird
Picidae – Woodpeckers and Wrynecks	
Colaptes auratus	northern flicker
Picoides nuttallii	Nuttall's woodpecker
Tyrannidae – Tyrant Flycatchers	
Tyrannus vociferans	Cassin's kingbird
Corvidae – Jays, Crows, and Magpies	
Aphelocoma coerulescens	western scrub jay
Corvus corax	common raven
Aegithalidae – Bushtit	
Psaltriparus minimus	bushtit
Troglodytidae – Wrens	
Thryomanes bewickii	Bewick's wren
Troglodytes aedon	house wren
Sylviidae – Gnatcatchers	
Polioptila californica californica†	coastal California gnatcatcher
Timaliidae – Wrentits	
Chamaea fasciata	wrentit
Mimidae – Mockingbirds and Thrashers	
Mimus polyglottos	northern mockingbird
Toxostoma redivivum	California thrasher
Emberizidae – Sparrows, Buntings, Warblers, Blackbirds, Orioles, and Relatives	
Melospiza melodia	song sparrow
Pipilo maculatus	spotted towhee
Pipilo crissalis	California towhee

Appendix B (cont.)
ANIMAL SPECIES OBSERVED OR DETECTED

SCIENTIFIC NAME†	COMMON NAME
VERTEBRATES (cont.)	
Birds (cont.)	
Fringillidae – Finches and Relatives	
Carpodacus mexicanus	house finch
Carduelis psaltria	lesser goldfinch
Mammals	
Leporidae – Rabbits and Hares	
Sylvilagus audubonii	desert cottontail
Sciuridae – Squirrels, Chipmunks, and Marmots	
Spermophilus beecheyi	California ground squirrel
Geomyidae – Pocket Gophers	
Thomomys bottae	Botta's pocket gopher
Muridae – Mice, Rats, and Voles	
Neotoma sp.	woodrat (nest)
Canidae – Foxes, Wolves, and Relatives	
Canis latrans	coyote (scat)

†Denotes sensitive species

APPENDIX C

LISTED OR SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR

Appendix C LISTED OR SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	**STATUS***	**POTENTIAL TO OCCUR/COMMENTS**
San Diego ambrosia (*Ambrosia pumila*)	FE/-- CNPS List 1B.1 R-E-D 3-3-2 County List A	Very low. Range extends from Riverside County through San Diego County into Baja. Found along drainages and areas adjacent to riparian areas. Nearest location is San Luis Rey.
San Diego thornmint (*Acanthomintha ilicifolia*)	FT/SE CNPS List 1B.1 R-E-D 2-3-2 County List A	Low. Clay soils necessary for this species to occur do not occur on site. Would have been observed in 2003 survey if present.
Orcutt's brodiaea (*Brodiaea orcuttii*)	--/-- CNPS List 1B.1 R-E-D 1-3-2 County List A	Low. Found in moist grasslands or near vernal pools during spring. Little suitable habitat occurs on site.
Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)	--/-- CNPS List 1B.2 R-E-D 2-2-2 County List A	Low. Large shrub found in chaparral, foothill and coastal areas. Range extends from San Diego County to northern Baja below 2,100 feet. Would have been observed if present.
Wart-stemmed ceanothus (*Ceanothus verrucosus*)	--/-- CNPS List 2.2 R-E-D 1-2-1 County List B	Low. Shrub species that would have been observed if present. Limited to San Diego and Baja. Prefers chaparral on dry hills and mesas in coastal areas.
Palmer's goldenbush (*Ericameria palmeri* var. *palmeri*)	--/-- CNPS List 2.2 R-E-D 2-2-1 County List B	Low. Range extends from southern San Diego County to northern Baja. Typically found along drainages or near chaparral. Site is outside known range.
Western dichondra (*Dichondra occidentalis*)	--/-- CNPS List 4.2 R-E-D 1-2-1 County List D	Low. Found in understory of chaparral, other shaded areas below 1,800 feet and rock outcroppings, often after fire. Little suitable habitat is present on site.
Graceful tarplant (*Holocarpha virgata elongata*)	--/-- CNPS List 4.2 R-E-D 1-2-3 County List D	Low. Found in open areas, coastal, and foothill grasslands in San Diego, Riverside, and Orange counties. Locally, range is to south and east.
Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)	--/-- CNPS List 1B.2 R-E-D Code 3-2-2 County List A	Very low. Widespread throughout southern California foothill in dry, exposed locales. Site is coastal in comparison.
California adolphia (*Adolphia californica*)	--/-- CNPS List 2.1 R-E-D 1-2-1 County List B	Low. Shrub found on dry slopes, foothill, and coastal areas. Would have been observed if present.

Appendix C (cont.) LISTED OR SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	**STATUS***	**POTENTIAL TO OCCUR/COMMENTS**
Southwestern spiny rush (*Juncus acutus leopoldii*)	--/-- CNPS List 4.2 R-E-D 1-2-1 County List D	Low. Ranges extend from Arizona to Baja and the central California coast. Found in moist, saline, or alkaline areas within coastal, foothill, and desert. Would have been observed if present.
Prostrate spineflower (*Chorizanthe procumbens*)	--/-- CNPS List 4 R-E-D 1-2-2 County List D	Low. Prefers sandy openings in coastal scrub and chaparral habitat, as well as along edges of dirt roads. Habitats on site generally too dense. Would have been observed in openings in present.
Paniculate tarplant (*Deinandra paniculata*)	--/-- CNPS List 4.2 R-E-D 1-2-2 County List D	Low. Found on sparsely vegetated slopes and grasslands or open sage scrub on hard-packed soils or on mesas in south coastal areas. Habitat generally too dense on site.
Cooper's rein orchid (*Piperia cooperi*)	--/-- CNPS List 4.2 R-E-D 1-2-2 County List D	Low. Range extends from south coast, to Santa Catalina Island, San Gabriel Mountains, Peninsular Ranges, and Baja. Prefers generally dry sites, shrubland, woodland, and grasslands. Would have been observed if present.

*Refer to Appendix E for a listing and explanation of status codes for plant and animal species.

APPENDIX D

LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

Appendix D LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	**STATUS***	**POTENTIAL TO OCCUR/COMMENTS**
INVERTEBRATES		
Hermes copper butterfly (*Lycaena hermes*)	--/-- County Group 1	Very low. Host plant *Rhamnus crocea* not found on site.
Monarch butterfly (*Danaus plexippus*)	--/-- County Group 2	High. Migratory species likely passes through the site.
VERTEBRATES		
Amphibians		
Arroyo toad (*Bufo microscaphus californicus*)	FE/CSC County Group 1	Low. Generally occurs in areas with open sandbars along perennial creeks or watercourses. This habitat does not occur on site. Nearest known sites are in Boden Canyon, and the San Luis Rey River to the north and northeast.
California red-legged frog (*Rana aurora draytoni*)	FT/--	None. Riparian area on site limited. Needs standing water. Species believed extirpated from San Diego County.
Fish		
Arroyo chub (*Gila orcutti*)	--/CSC County Group 1 U.S. Forest Service Sensitive	None. Creeks are ephemeral and do not hold water for long enough period of time.
Reptiles		
Orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*)	--/CSC County Group 2 MSCP	Moderate. Coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny areas, shaded areas, and abundant invertebrate prey base, particularly termites (*Reticulitermes* sp.). May be present but in low numbers. None were observed during multiple surveys but likely occurs near more open areas.
San Diego horned lizard (*Phrynosoma coronatum blainvillei*)	--/CSC County Group 2 MSCP	Moderate. Southern California west of the deserts and south into northern Baja. Coastal sage scrub, chaparral, both open oak woodlands and coniferous forests. Important habitat components include basking sites, adequate scrub cover, areas of loose soil, and abundance of harvester ants (*Pogonomyrmex* spp.), a primary prey item.
Silvery legless lizard (*Anniella nigra argentea*)	--/CSC County Group 2	High. Important habitat components include loose soil and leaf-litter, adequate soil moisture, warmth, and an abundance of invertebrate prey. Suitable habitat occurs in oak woodlands.

Appendix D (cont.) LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	**STATUS***	**POTENTIAL TO OCCUR/COMMENTS**
VERTEBRATES (cont.)		
Reptiles (cont.)		
Red-diamond rattlesnake (*Crotalus ruber*)	--/CSC County Group 2	High. Found in chaparral, coastal sage scrub, along creek banks, and in rock outcrops or piles of debris with a supply of burrowing rodents for prey.
Coronado skink (*Eumeces skiltonianus interparietalis*)	--/CSC County Group 2	High. Found in open areas, sparse brush, and oak woodlands, usually under rocks, leaf litter, logs, debris, or in the shallow burrows it digs (Zeiner et al. 1988).
Coast patch-nosed snake (*Salvadora hexalepis virgultea*)	--/CSC County Group 2	High. Found in coastal sage scrub, chaparral, riparian, grasslands, and agricultural fields (Zeiner et al. 1988). Prefers open habitats with friable or sandy soils, burrowing rodents for food, and enough cover to escape being preyed upon.
Two-striped garter snake (*Thamnophis hammondii*)	--/CSC County Group 1	Low. Found primarily along permanent creeks and streams but also around vernal pools and along intermittent streams. Occasionally found in chaparral or other habitats relatively far from permanent water.
San Diego banded gecko (*Coleonyx variegatus abbotti*)	/-- County Group 1	Low. Found in chaparral and coastal sage scrub in areas with rock outcrops.
Coastal rosy boa (*Charina trivirgata roseofusca*)	--/-- County Group 2	Moderate. Found in dry, rocky brushlands and arid habitats, usually near intermittent streams but does not require permanent water.
South coast garter snake (*Thamnophis sirtalis*)	--/CSC County Group 2	Moderate. Subspecies of garter snake found in Southern California. Requires water/riparian areas near grasslands, coastal sage scrub, or chaparral. Site may be too dry to support this species.
San Diego ringneck snake (*Diadophis punctatus similis*)	--/-- County Group 2 U.S. Forest Service Sensitive	Moderate. Generally occurs in moist habitats such as oak woodlands and canyon bottoms, but is also sometimes encountered in grassland, chaparral, and coastal sage scrub.
Coastal western whiptail (*Cnemidophorus tigris multiscutatus*)	No official status, but formerly federal Category 2; County Group 2	High. Ventura County south, in cismontane California, to south-central Baja. Open coastal sage scrub, chaparral, and woodlands. Frequently found along the edges of dirt roads traversing its habitats. Important habitat components include open sunny areas, shrub cover with accumulated leaf litter, and an abundance of invertebrate prey, particularly termites.

Appendix D (cont.) LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	**STATUS***	**POTENTIAL TO OCCUR/COMMENTS**
VERTEBRATES (cont.)		
Birds		
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE/SE County Group 1 MSCP	None. No suitable habitat on site. Breeds within thickets of willows or other riparian understory, usually along streams, ponds or lakes, or in canyon drainage bottoms. Migrant southwestern willow flycatchers may be located among any of the larger trees or shrubs in the County, but even migrants seem to prefer damp areas. Significant populations in County found only on Santa Margarita and San Luis Rey Rivers. Other County sightings have been at lakes and reservoirs and in the Tijuana River Valley.
Least Bell's vireo (*Vireo bellii pusillus*)	FE/SE County Group 1 MSCP	None. No suitable habitat on site. Prefers riparian woodland and is most frequent in areas that combine an understory of dense, young willows (*Salix* ssp.) or mule fat (*Baccharis salicifolia*) with a canopy of tall willows. Formerly common and widespread in California and northwestern Baja but now restricted to major river systems in San Diego County. Known to winter only in southern Baja.
Burrowing owl (*Athene cunicularia hypugea*)	--/CSC County Group 1 MBTA	Low. This bird is restricted to essentially flat, open country with suitable nest sites. They acquire their burrows from various burrowing mammals either through abandonment or eviction. Evidence of this species or direct observation would have occurred if present.
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	--/CSC County Group 1 MSCP	Moderate. Found in coastal sage scrub, where it occurs on rocky hillsides and in canyons, may also be found in open sage scrub/grassy areas of successional growth (e.g., after a fire). Found from Ventura County to northwest Baja.
Bell's sage sparrow (*Amphispiza belli belli*)	--/CSC County Group 1	Moderate. Occurs in sunny, dry stands of coastal sage scrub and chaparral.
Loggerhead shrike (*Lanius ludovicianus*)	--/CSC County Group 1	Moderate. Found in open habitats including grasslands, shrublands, and ruderal vegetation with adequate perching locations. Some suitable habitat on site.
Yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	--/SE County Group 1	None. Now considered extirpated from San Diego County. Used to be found in open woodlands with dense understories, riparian woodlands, dense thickets, and occasionally parks. Common in eastern and Midwestern U.S., but rare in the west.

Appendix D (cont.) LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	**STATUS***	**POTENTIAL TO OCCUR/COMMENTS**
VERTEBRATES (cont.)		
Birds (cont.)		
Golden eagle (*Aquila chrysaetos*)	--/CSC County Group 1 MSCP BEPA	Low. Forages in grassy and open, shrubby habitats. Nest most often on cliffs, less often in trees. Tend to require places of solitude and are usually found at a distance from human habitation.
Cooper's hawk (*Accipiter cooperii*)	Nesting --/CSC County Group 1	Moderate. Occurs throughout the continental U.S. excluding Alaska, parts of Montana, and parts of the Dakotas. Winters south to Mexico and Honduras. In San Diego County, tends to inhabit lowland riparian areas and oak woodlands in proximity to suitable foraging areas such as shrublands or fields. May occur in woodlands on eastern edge of site.
Sharp-shinned hawk (*Accipiter striatus*)	--/CSC County Group 1	Low. Would only occur during winter as a visitor.
Coastal cactus wren (*Campylorhynchus brunnicapillus couesi*)	--/CSC County Group 1	Low. Occurs in coastal sage scrub with large cacti for nesting. While patches of cactus occur in the northern portion of the site, no cactus wrens were observed during gnatcatcher surveys, and no records of cactus wrens within the San Marcos quadrangle are reported on the CNDDB.
Northern harrier (*Circus cyaneus*)	--/CSC County Group 1	Moderate. Suitable habitat includes coastal, salt, and freshwater marshlands, grasslands, prairie, sage scrub, and chaparral.
California horned lark (*Eremophila alpestris actia*)	--/CSC County Group 2	Low. Occurs in open habitats such as the grasslands and open areas found on site, but would likely have been observed if present.
Yellow-breasted chat (*Icteria virens*)	--/CSC County Group 1	Low. Prefers brushy tangles, briars, stream thickets, riparian scrub, and riparian woodland. Breeding confined to riparian woodlands.
Grasshopper sparrow (*Ammodramus savannarum*)	--/-- County Group 1	Low. Found from southern Canada to the southern U.S., West Indies, Mexico, and Ecuador. Locally found in grassland habitat that has not been plowed and contains some native grass components. Habitat limited on site.
Long eared owl (*Asio otus*)	Nesting --/CSC County Group 1	Low. Year round resident in woodlands and forests. Suitable habitat limited on site. May forage on site if suitable roosting habitat is nearby.
Common barn owl (Tyto alba)	--/-- County Group 2	High. Occupies a vast range of habitats from rural to urban, but nearby open grassland is essential for hunting.
Great blue heron (Ardea herodias)	--/-- State Forestry Sensitive County Group 2	Low. Year-round resident hunts while wading in quiet waters. No suitable hunting habitat occurs on site.

Appendix D (cont.)
LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

SPECIES	STATUS*	POTENTIAL TO OCCUR/COMMENTS
VERTEBRATES (cont.)		
Mammals		
Stephens' kangaroo rat (*Dipodomys stephensi*)	FE/ST County Group 1	Low. Prefers large areas of disturbed or patchy grasslands, open coastal sage scrub. Sites are outside known range in San Diego County. Nearest known populations are in Rancho Guejito and at the Naval Weapons Station in Fallbrook.
Pallid bat (*Antrozous pallidus pacificus*)	--/CSC County Group 2	Low to roost on site. Roosts colonially in caves, mines, crevices, and abandoned buildings that do not occur on site but could forage in the area, as there are roost sites in the vicinity.
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	--/CSC County Group 2	Moderate. Occurs in open areas of coastal sage scrub and weedy growth, often on sandy substrates.
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	--/CSC County Group 2	Low. Occurs primarily in open habitats including coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas if there is at least some shrub cover present. Most habitat on site is not suitable.
California leaf-nosed bat (*Macrotus californicus*)	--/CSC County Group 2	Low to roost on site. Preferred roosts include caves or abandoned mines. This species is not likely to roost on site because of the lack of deep caves or mines but could forage if there is a roost in the vicinity.
San Diego desert woodrat (*Neotoma lepida intermedia*)	--/CSC County Group 2	Moderate. Positive identification would require trapping. Generally found in chamise chaparral, oak woodland, and coastal sage scrub below 3,000 feet.
Southern grasshopper mouse (*Onychomys torridus ramona*)	--/CSC County Group 2	Moderate. Can occur in all arid habitats, including coastal sage scrub and chaparral.
Townsend's western big-eared bat (*Plecotus townsendii*)	--/CSC County Group 2	Low to roost on site. Roosts in mines or caves that do not occur on site but could forage in the area, especially in more mesic habitats such as the coast live oak woodlands.
Greater western mastiff bat (*Eumops perotis californicus*)	-/CSC County Group 2	Moderate to forage on site. The species inhabits crevices in cliff faces, high buildings, trees, and tunnels. Foraging is concentrated around bodies of water but also includes coastal sage scrub, chaparral, and grassland habitats.
Small-footed myotis (*Myotis ciliolabrum*)	--/-- County Group 2	Low to roost on site. Ranges throughout western North America. Roosts in various crevices, tunnels, and under rock slabs.

Appendix D (cont.)
LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

SPECIES	STATUS*	POTENTIAL TO OCCUR/COMMENTS
VERTEBRATES (cont.)		
Mammals (cont.)		
Pocketed free-tailed bat (*Nyctinomops femorosaccus*)	--/CSC County Group 2	Low to roost on site. Ranges from southern California to New Mexico. Lives in deserts and sage scrub. Roosts in crevices.
Mexican long-tongued bat (*Choeronycteris mexicana*)	--/CSC County Group 2	None. Likes desert canyons and mountain ranges. Roosts in crevices, mines and bridges.
Big free-tailed bat (*Tadarida sapiens*)	--/CSC County Group 2	None. Isolated populations throughout southwestern U.S. Prefers forest and deserts. Roosts in crevices and cliffs. Site outside range.
Ringtail (*Bassariscus astutus*)	--/Fully Protected County Group 2	Low. Found in various riparian habitats and in brush stands of moist forest and shrub habitats at low to middle elevations. Strictly nocturnal.
Mountain lion (*Felis concolor*)	--/Fully Protected County Group 2	Low. Widespread species, locally ranges from Mountains into foothills, rarely to coastal areas. No sign of this species and no sign of mule deer, a preferred prey species, indicates the area is unlikely to be used regularly. Site likely too far west.
Southern mule deer (*Odocoileus hemionus fuliginata*)	--/-- County Group 2	Moderate potential to occur. Southern Riverside County (Tahquitz Valley), south on the coastal slope to the vicinity of San Quintin, Baja. Coastal sage scrub, riparian and montane forests, chaparral, grasslands, croplands, and open areas if there is at least some scrub cover present. Crepuscular activity and movements are along routes that provide the greatest amount of protective cover.
American badger (*Taxidea taxus*)	--/-- County Group 2	Low. Occurs in level, open areas in grasslands, agricultural fields, and open shrub habitats. It digs large burrows in dry, friable soils. Signs would have been observed if present.
Yuma myotis (*Myotis yumanensis*)	--/-- County Group 2	Very low. Preferred roosts such as caves, abandoned mines, bridges, or tree cavities, which are not present on site. Always found near water.
Western red bat (*Lasiurus blossevillii*)	County Group 2 U.S. Forest Service Sensitive	Low. Widespread from Canada to South America. Prefers forest and wooded areas, little of which is found on site.

*Refer to Appendix E for a listing and explanation of status codes for plant and animal species.

APPENDIX E

EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

Appendix E
EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

FEDERAL, STATE, AND LOCAL CODES

U.S. Fish and Wildlife Service (USFWS)

FE	Federally listed endangered
FT	Federally listed threatened
FSC	Federal special concern species (a "term of art" for former Category 2 candidates)
BEPA	Bald Eagle Protection Act
MBTA	Migratory Bird Treaty Act (discussed in more detail below)

California Department of Fish and Game (CDFG)

SE	State listed endangered
ST	State listed threatened
CSC	California special concern species
Fully Protected and Protected	Fully Protected and Protected species may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFG.

County of San Diego

Plant Sensitivity

Group A	Plants rare, threatened or endangered in California or elsewhere
Group B	Plants rare, threatened or endangered in California but more common elsewhere
Group C	Plants that may be quite rare, but more information is needed to determine rarity status
Group D	Plants of limited distribution and are uncommon, but not presently rare or endangered

Animal Sensitivity

County Sensitive	Animals considered under California Environmental Quality Act (CEQA) review of projects.

Federal and State Forest Service Codes

Federal:

FS	U.S. Department of Agriculture Forest Service Sensitive

The USDA Forest Service defines sensitive species as those plant and animal species identified by a regional forester for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density, or significant current or predicted downward trends in habitat capability that would reduce a species existing distribution. Regional foresters shall identify sensitive species occurring within the region. More information is available at http://www.fs.fed.us/r5/projects/sensitive-species.

EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

Federal and State Forest Service Codes (cont.)

State:

CDF California Department of Forestry and Fire Protection Sensitive

The Board of Forestry classifies as "sensitive species" those species that warrant special protection during timber operations. The list of "sensitive species" is given in §895.1 (Definitions) of the California Forest Practice Rules, which are available online at www.fire.ca.gov.

OTHER CODES AND ABBREVIATIONS

Migratory Bird Treaty Act (MBTA)

This law is enforced as a result of local laws governing impacts to sensitive resources. For the unincorporated portion of San Diego County, the County of San Diego Resource Protection Ordinance protects "sensitive habitat lands" which includes species identified under Section 15380 of CEQA. The County's list of sensitive animal species includes most birds protected by the Migratory Bird Treaty Act.

Multiple Species Conservation Program (MSCP) Covered

Multiple Species Conservation Program covered species for which County and City have take authorization within MSCP area.

California Native Plant Society (CNPS) Codes

Lists

1A = Presumed extinct.

1B = Rare, threatened, or endangered in California and elsewhere. Eligible for state listing.

2 = Rare, threatened, or endangered in California but more common elsewhere. Eligible for state listing.

3 = Distribution, endangerment, ecology, and/or taxonomic information needed. Some eligible for state listing.

4 = A watch list for species of limited distribution. Needs monitoring for changes in population status. Few (if any) eligible for state listing.

List/Threat Code Extensions

.1 – Seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)

.2 – Fairly endangered in California (20 to 80 percent occurrences threatened)

.3 – Not very endangered in California (less than 20 percent of occurrences threatened, or no current threats known)

A "CA Endemic" entry corresponds to those taxa that only occur in California.

All List 1A (presumed extinct in California) and some List 3 (need more information; a review list) plants lacking threat information receive no extension. Threat Code guidelines represent only a starting point in threat level assessment. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Code.

APPENDIX F

COASTAL CALIFORNIA GNATCATCHER SURVEY REPORTS

HELIX environmental planning, inc.

7578 El Cajon Boulevard, Suite 200

La Mesa, CA 91941

fax (619) 462-0552

phone (619) 462-1515

Inland Empire Office

phone (951) 328-1700

April 24, 2009 BOO-07

Ms. Sandy Marquez
U.S. Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, California 92009

Subject: Year 2009 Protocol Coastal California Gnatcatcher Survey Report for the Sugarbush Residential Property

Dear Ms. Marquez:

This letter presents the results of a U.S. Fish and Wildlife Service (USFWS) protocol presence/absence survey conducted by HELIX Environmental Planning, Inc. for the coastal California gnatcatcher (*Polioptila californica californica*) for the Sugarbush Property. This report describes the methods used to perform the survey and the results. It is being submitted to the USFWS as a condition of HELIX's Threatened and Endangered Species Permit TE778195.

INTRODUCTION

The approximately 115.5-acre property is located within the North County Metro Community Planning Area in the unincorporated portion of San Diego County. It is situated between the Buena Vista and Twin Oaks communities (Figure 1) northeast of San Marcos at the southern terminus of Sugarbush Drive at Buena Creek Road (Figure 2). The project site is currently vacant and supports predominantly native vegetation bisected by dirt roads and trails. Surrounding land uses include undeveloped land to the south and southeast and low-density residential to the north, west, and east.

METHODS

Site visits were made per the current (1997) USFWS protocol. Each site visit was conducted in a single day. Approximately 94.4 acres of potential habitat occur within the property boundary, with an additional 13.7 acres located within 100 feet of the property boundary. Due to the acreage of survey area and topographic conditions, the survey area was divided into two portions (Figure 3). Portion A contains approximately 43.1 acres of survey area and Portion B contains approximately 65.0 acres of survey area.

HELIX permitted biologists Jason Kurnow and Debbie Leonard conducted the survey by walking through vegetation or on adjacent paths (Figure 3). Birds were viewed with the aid of binoculars, where necessary. Taped gnatcatcher

vocalizations were played for approximately 10 seconds at approximate 5-minute intervals, unless gnatcatchers were heard before playing the tape. In those instances, no tape was played. The tape was not played after a gnatcatcher was detected. Information for each site visit is provided in Table 1.

Table 1
GNATCATCHER SURVEY INFORMATION

Survey Area (Portion)	Biologists	Start/Stop Times	Approx. Acres Surveyed/ Acres per Hour	Weather Conditions Start/Stop*
Site Visit 1 – March 12, 2009				
A	Leonard	0845/1200	43.1 acres/ 13.3 acres	90% cloud cover, 56°F, wind 0-2 mph / 90% cloud cover, 58°F, wind 0-2 mph
B	Kurnow	0845/1200	65.0 acres/ 20 acres	
Site Visit 2 – March 20, 2009				
A	Leonard	0830/1200	43.1 acres/ 12.3 acres	100% cloud cover, 56°F, wind 1-3 mph / 0% cloud cover, 70°F, wind 1-3 mph
B	Kurnow	0830/1200	65.0 acres/ 18.6 acres	
Site Visit 3 – March 27, 2009				
A	Leonard	0830/1130	43.1 acres/ 14.4 acres	0% cloud cover, 56°F, wind 0-2 mph / 0% cloud cover, 72°F, wind 0-2 mph
B	Kurnow	0830/1130	65 acres/ 21.7 acres	

*Weather conditions were the same in both survey areas.

SURVEYED VEGETATION COMMUNITY DESCRIPTIONS

The site contains 11 vegetation communities, which are described below. Four vegetation communities within the survey area are potential habitat for the coastal California gnatcatcher: Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, coastal sage-chaparral scrub, and coyote bush scrub (Figure 3).

Coast Live Oak Woodland

This is an open to dense evergreen woodland or forest community dominated by coast live oak (*Quercus agrifolia*), which may reach a height of 35 to 80

feet. This community occurs along the coastal foothills of the Peninsular Ranges, typically on north-facing slopes and shaded ravines (Holland 1986). This community occurs on site primarily along the western stretch of the main drainage as it exits the property on the western side and as scattered individual trees elsewhere. Additional species within the coast live oak woodland include poison oak (*Toxicodendron diversilobum*), San Diego honeysuckle (*Lonicera subspicata*), and chess species (*Bromus* sp.).

Coast live oaks have broad root systems that are assumed to extend well beyond the tree canopy. Because these roots are considered sensitive to ground disturbance, the County requires that a root zone be mapped beyond the canopy of all areas of coast live oak woodland. Generally, the County assumes that oak roots extend 50 feet beyond the oak canopy; however, this assumption does not account for variation between individual trees. The oak woodland associated with the main drainage in the north-central portion of the site is very sparse and supports mostly immature trees with very small canopies. Although many trees in this area meet the County's trunk diameter requirement for an oak woodland (6 inches at breast height), their canopies are small and do not overlap. The root zone for trees in this area is assumed to be proportional to the canopy diameter of each tree. Therefore, a tree with a 50-foot canopy would have a 50-foot root zone beyond its canopy, and a tree with a 30-foot canopy would have a 30-foot root zone beyond its canopy.

Diegan Coastal Sage Scrub (including disturbed)

Diegan coastal sage scrub is a vegetation community commonly characterized by drought-adapted subshrubs such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and black sage (*Salvia mellifera*). This vegetation community dominates the proposed project site. Additional species, such as laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus integrifolia*), and fuchsia-flower gooseberry (*Ribes speciosum*), also occur on site. The area of Diegan coastal sage scrub on site can be separated by floristic composition into two areas. The western, flatter area and the ridge in the northern portion of the site support a California sagebrush-dominated sage scrub, whereas the steep slopes of the east and south support laurel sumac and black sage-dominated sage scrub.

Disturbed Diegan coastal sage scrub primarily occurs in the northeastern portion of the site, where adjacent homeowners have cleared vegetation on site to create a fire buffer around their homes and on terraced slopes previously used to grow avocados. This area is characterized by an increased number of non-native grasses and less cover, especially on the north-facing slopes. Native coastal sage scrub species are recovering within the disturbed areas.

Coastal Sage-Chaparral Scrub

Coastal sage-chaparral scrub is a mixture of sclerophyllous chaparral shrubs and drought-deciduous sage scrub species regarded as an ecotone (or transition) between the two vegetation communities. This singular community contains floristic elements of both communities, including California sagebrush, California buckwheat, laurel sumac, scrub oak (*Quercus berberidifolia*), and chamise (*Adenostoma fasciculatum*).

Coyote Brush Scrub

Coyote brush scrub, which is identified as a distinct community despite not being described by Holland (1986), is dominated by coyote brush (*Baccharis pilularis*) and typically occurs in low-lying areas. Mexican elderberry (*Sambucus mexicana*) is also found within this habitat on site.

Non-native Grassland

Non-native grassland is dominated by non-native grass species such as chess species, oat species (*Avena fatua* and *A. barbata*), and ryegrass (*Lolium multiflorum*) but also can contain some native grasses as well as native and non-native forbs. Non-native grassland occurs in several places throughout the project site often adjacent to or within coastal sage scrub.

Eucalyptus Woodland

As its name implies, eucalyptus woodland is dominated by trees of the species *Eucalyptus*. The understory within well-established groves is usually very sparse due to the closed canopy and allelopathic nature of the leaf litter. The sparse understory offers only limited wildlife habitat. Within the proposed project site, eucalyptus woodland occurs in two areas (the northwestern and northeastern corners).

Non-native Vegetation

Non-native vegetation is the name ascribed to cultivated plants that have become naturalized in native habitat areas or that are remnant of previous cultivated land uses. Non-native vegetation on site consists of scattered olive (*Olea europaea*) trees in the southern portion of the site.

Disturbed Habitat

Disturbed habitat includes land cleared that provide little to no habitat value to native animal species or contains a preponderance of non-native plant species.

Disturbed habitat consists of unpaved roads, areas used for beehives on the western portion of the site, and areas where clippings have been dumped.

Orchard

The canopies of several avocado trees (*Persea americana*) associated the property adjacent to the northwestern site boundary overlap the property boundary.

Developed

Developed land is where permanent structures and/or pavement have been placed or where tended landscaping occurs preventing the growth of native vegetation. Within the project site, developed land includes fire clearing for residential units to the north and a small area of pavement in the west.

SURVEY RESULTS

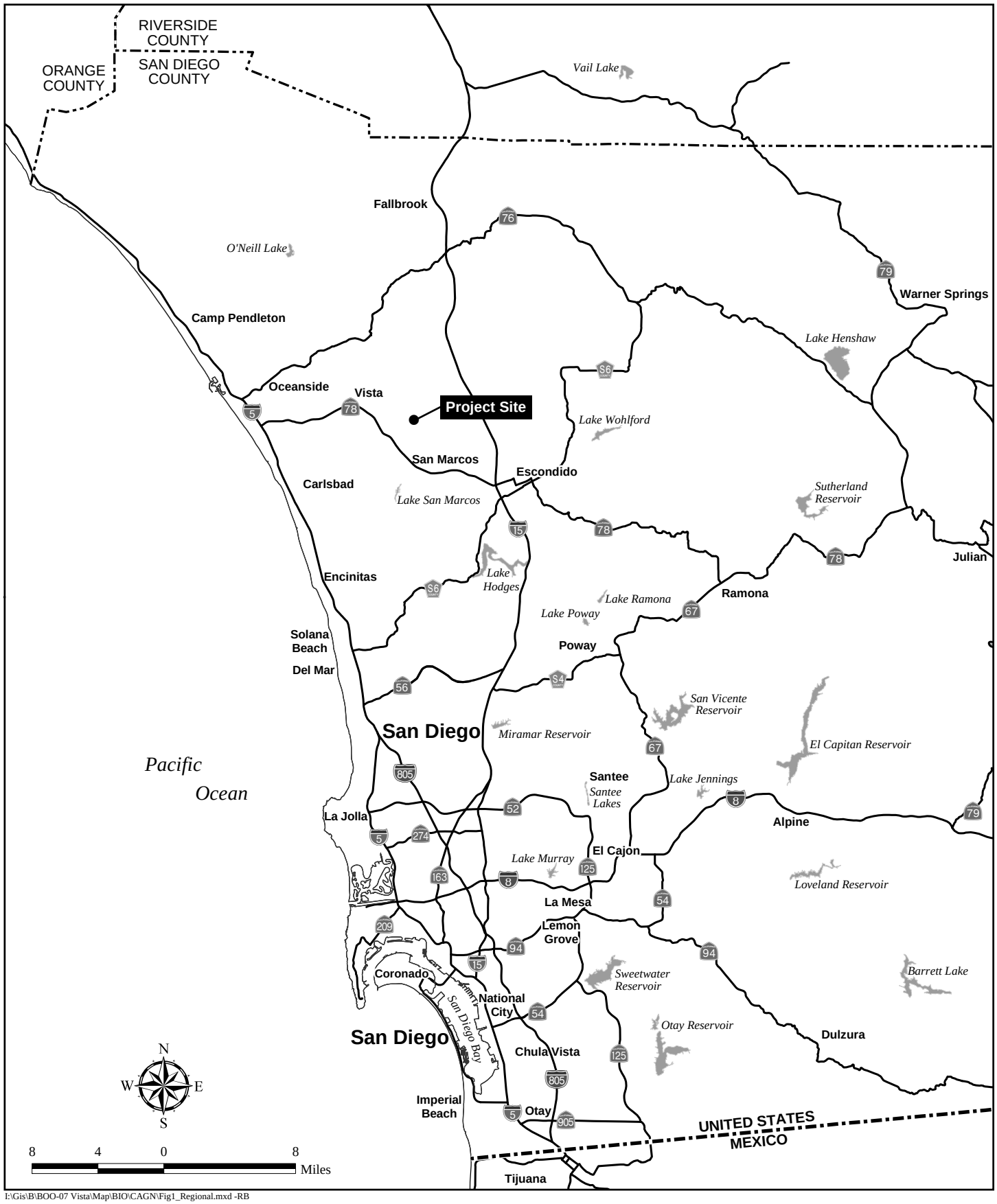
A single coastal California gnatcatcher occurs within the northern part of Portion B (Figure 3). This bird was not observed, but detected via vocalization during each of the 3 site visits.

Please contact me if you have any questions.

Sincerely,

Jason Kurnow
Biologist

Enclosures: Figure 1 Regional Location Map
2 Project Location Map
3 Vegetation and Sensitive Resources



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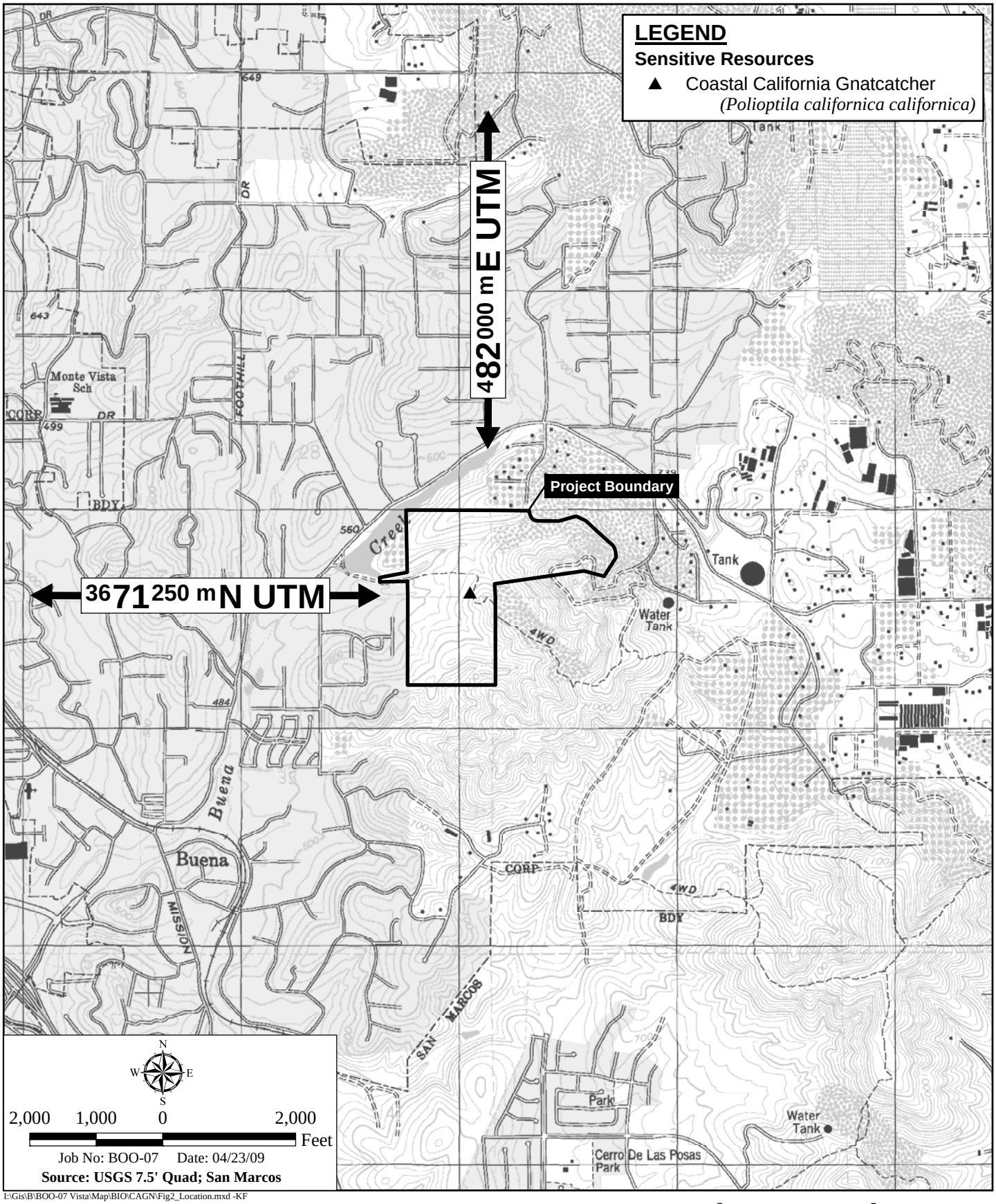
Regional Location Map

SUGARBUSH RESIDENTIAL PROJECT

Figure 1



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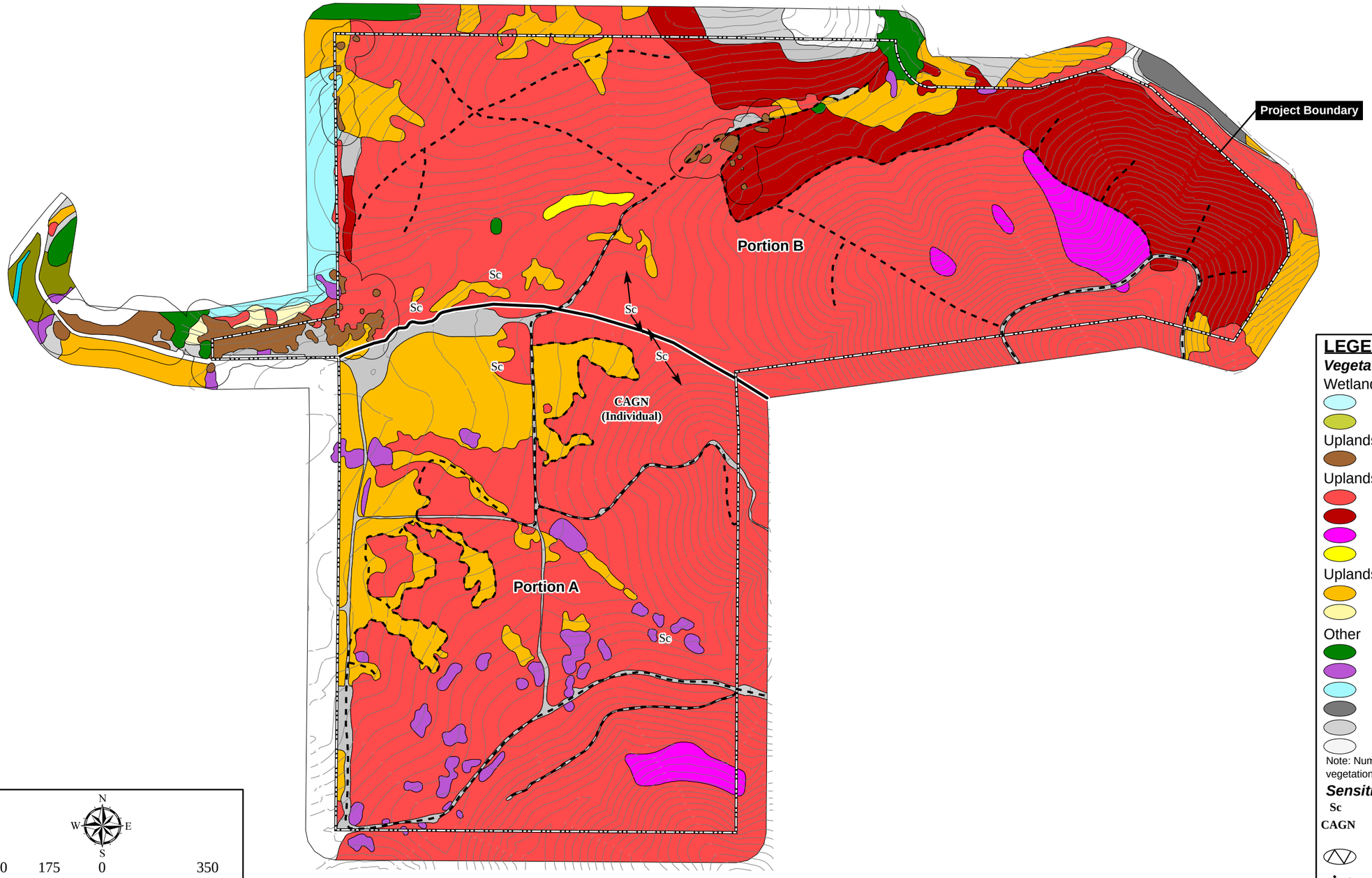
Project Location Map

SUGARBUSH RESIDENTIAL PROJECT

HELIX

Figure 2



LEGEND

Vegetation

Wetlands
- Freshwater Marsh (52400)
- Southern Coast Live Oak Riparian Forest (61310)

Uplands (High Sensitivity)
- Coast Live Oak Woodland (71160)

Uplands (Moderate Sensitivity)
- Diegan Coastal Sage Scrub (32500)
- Diegan Coastal Sage Scrub Disturbed (32500)
- Coastal Sage - Chaparral Scrub (37G00)
- Coyote Brush Scrub (32000)

Uplands (Low Sensitivity)
- Non-native Grassland (42220)
- Southern Mixed Chaparral (37120)

Other
- Eucalyptus Woodland (11100)
- Non-native Vegetation (11000)
- Orchard (18100)
- Intensive Agriculture (18200)
- Disturbed Habitat (11300)
- Developed (12000)

Note: Numbers in parentheses represent the Holland code for the vegetation type.

Sensitive Resources
- Sc — Ashy Spike-moss *(Selaginella cinerascens)*
- CAGN — Coastal California Gnatcatcher *(Polioptila californica californica)*
- Oak Root Zone
- Survey Route

N W E S

350 175 0 350 Feet

Job No: BOO-07 Date: 04/23/09

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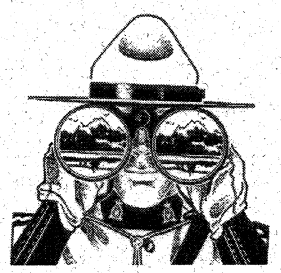
Vegetation and Sensitive Resources

SUGARBUSH RESIDENTIAL PROJECT

HELIX

Figure 3



ROBIN CHURCH BIOLOGICAL CONSULTING

12737 Campo Road, Spring Valley, Ca 91978
phone: (619) 660-0451 fax: (619) 660-2327
email: robinchurch@cox.net

Derek Langsford
Helix Environmental Planning
8100 La Mesa Boulevard
La Mesa, CA 91941-6476

August 15, 2003

RE: Summary Report of the California Gnatcatcher Surveys for the Sugarbush Ranch Project

Dear Mr. Langsford,

Please accept this letter as the summary of the results of the presence/absence surveys for the California gnatcatcher for the Sugarbush Ranch Project. The surveys were conducted in accordance with my USFWS 10a permit (TE-812206-3) and following the protocol for the species.

Introduction

The proposed project consists of a 41-lot residential development with associated roads and facilities. It is located in an unincorporated area of San Diego County east of Vista and north of San Marcos (Figure 1), at the southern terminus of Sugarbush Road. The site is 115 acres and currently consists of undeveloped lands.

Geographical Limits of the Study Area

The property is located in Section 27, Township 11 South, Range 3 West of the San Bernardino Base and Meridian U.S. Geological Survey 7.5-minute San Marcos quadrangle (Figure 2). The project site is situated among a group of hills south of Buena Creek. The site consists of steep slopes, a drainage and a gently sloped are. Elevations onsite range from 600 to 1100 feet above mean sea level.

Habitats:

Thirteen vegetation communities/habitats occur within or directly adjacent to the proposed project site: coast live oak woodland, Diegan coastal sage scrub (including disturbed), coastal sage/chaparral mix, coyote brush scrub, southern mixed chaparral (including disturbed), poison oak chaparral, non-native grasslands, eucalyptus woodlands, non-native vegetation, orchard, intensive agriculture, disturbed habitat, and developed (Figure 3). For the purposes of acreage calculations the study area includes a 100 foot buffer around the project site for a total area if 142.3 acres. Descriptions of these communities are provided below.

Coast Live Oak Woodland

This community occurs on site primarily along the western length of the Buena Creek tributary and in scattered pockets elsewhere. Additional species within the coast live oak woodland include poison oak (*Toxicodendron diversilobum*), San Diego honeysuckle (*Lonicera subspicata*), and chess species (*Bromus* sp.). This habitat covers approximately 1.8 acres of the project study area.

Diegan Coastal Sage Scrub (including disturbed)

Diegan coastal sage scrub is a vegetation community commonly characterized by drought-adapted subshrubs such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and black sage (*Salvia mellifera*). This habitat community dominates the proposed project site. Additional species such as laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus intergrifolia*), fuschia-flower gooseberry (*Ribes speciosum*) also occur on site. Disturbed Diegan coastal sage scrub primarily occurs in the northeastern portion of the site and is characterized by an increased number of non-native grasses and less cover. Diegan coastal sage scrub, including disturbed areas covers approximately 100.8 acres of the project study area.

Coastal Sage – Chaparral Scrub

Coastal sage–chaparral scrub is a mixture of sclerophyllous chaparral shrubs and drought deciduous sage scrub species regarded as an ecotone, or transition, between the two vegetation communities. This singular community contains floristic elements of both communities including California sagebrush, California buckwheat, laurel sumac, scrub oak (*Quercus berberidifolia*), and chamise (*Adenostoma fasciculatum*). Coastal sage–chaparral scrub occurs in various areas throughout the project study area and covers approximately 2.4 acres of the proposed project site.

Coyote Brush Scrub

Coyote brush scrub is dominated by coyote brush (*Baccharis pilularis).* Species such as Mexican elderberry (*Sambucus mexicana*), and coyote brush (*Baccharis pilularis*) occur within a small pocket, approximately 0.3 acre, within the central portion of the proposed project site.

Southern Mixed Chaparral (including disturbed)

The southern mixed chaparral onsite includes chamise (*Adenostoma fasciculatum*), scrub oak (*Quercus dumosa*) and mission manzanita (*Xylococcus bicolor*). This habitat is located immediately outside the proposed project boundary, yet within the project study area, on the northwestern edge and covers approximately 5.2 acres.

Poison Oak Chaparral

Poison oak chaparral is dominated by poison oak. This habitat, covering approximately 0.2 acre, is found in four small patches, on- and off-site, along the Buena Creek tributary on the northwestern edge of the project study area.

Non-native Grassland

Non-native grassland is dominated by non-native grass species such as chess species (*Bromus* spp.), oat species (*Avena fatua* and *A. barbata*) and ryegrass (*Lolium multiflorum*) but also can contain some native grasses as well as native and non-native forbs. Non-native grassland occurs

in several places throughout the project study area and covers approximately 17.1 acres of the project study area.

Eucalyptus Woodland

As its name implies, eucalyptus woodland is dominated by trees of the species *Eucalyptus*. The understory within well established groves is usually very sparse due to the closed canopy and allelopathic nature of the leaf litter. Within this proposed project study area, eucalyptus woodland occurs in two areas: the northwestern corner and the northeastern corner, and covers approximately 1.1 acres.

Non-native Vegetation

Olive trees scattered in the southwestern portion of the site compose 2.2 acres.

Orchard

The orchard community within the project study area includes abandoned avocado and olive groves. These areas are located on north-facing slopes along the western property line. Because these areas have been fallow for many years, both chaparral and coastal sage scrub plant species, including laurel sumac, toyon (*Heteromeles arbutifolia*), eucalyptus and castor bean (*Ricinus communis*) have slowly returned. This community covers approximately 1.9 acres.

Intensive Agriculture

In the extreme northeastern portion is an area of crops, outside the proposed project boundary, covering approximately 0.5 acre in total.

Disturbed Habitat

Disturbed habitat includes land cleared of vegetation (dirt roads, for example) or contains a preponderance of non-native plant species. Disturbed habitat covers approximately 4.1 acres of the project study area.

Developed

Developed land is where permanent structures and/or pavement have been placed, preventing the growth of vegetation. Within the project study area, developed land includes residential units to the north and a small area of pavement to the northeast, totaling approximately 5.6 acres of the project study area.

CAGN Survey Methods

The site was surveyed on foot, habitats and survey routes mapped (Figure 3) by Robin Church. Species were identified directly by sight or by vocalizations, and indirectly by scat, tracks, or burrows. Focused surveys were performed for the California gnatcatcher on following dates shown in Table 1, below.

Table 1 California Gnatcatcher Survey Dates on Sugarbush Property					
Date	**Time**	**Survey**	**Temperature (°F)**	**Sky**	**Wind (mph)**
6/28/03 (Section 1)	7:00 to 10:00	California gnatcatcher	68°	Lite fog to Clear	0-5
6/30/03 (Section 2)	8:00 to 10:00	California gnatcatcher	66 to 70°	Lite fog to Clear	0-5
7/12/03 (Section 1)	6:30 to 10:00	California gnatcatcher	58 to 76°	Clear	0-5
7/17/03 (Section 2)	7:20 to 10:00	California gnatcatcher	70 to 76°	Overcast	0-5
7/19/03 (Section 1)	6:30 to 9:30	California gnatcatcher	70 to 76°	Overcast	0-5
7/24/03 (Section 2)	7:30 to 9:45	California gnatcatcher	69 to 76°	Overcast to clear	0-5

Three presence/absence surveys for the coastal California gnatcatcher (CAGN) were completed by USFWS permitted biologist Robin Church (Permit # TE-812206-3). Each survey was conducted at least one week apart, within the coastal sage scrub, coastal sage scrub/chaparral mix, and southern mixed chaparral onsite. Taped vocalizations of the gnatcatcher were played only to illicit an initial response. No more than 75 acres were covered per permitted biologist per survey day.

Results

The California gnatcatcher is a small gray songbird that is resident of scrub dominated communities. USFWS protocol requires a minimum of three surveys, at least one week apart, to determine presence/absence of this species. Sufficient time was spent in all appropriate habitats to determine the presence/absence of the California gnatcatcher.

One individual California gnatcatcher was observed on the Sugarbush Property (Figure 3).

Robin Church
Robin Church, Principal

8/15/03
Date

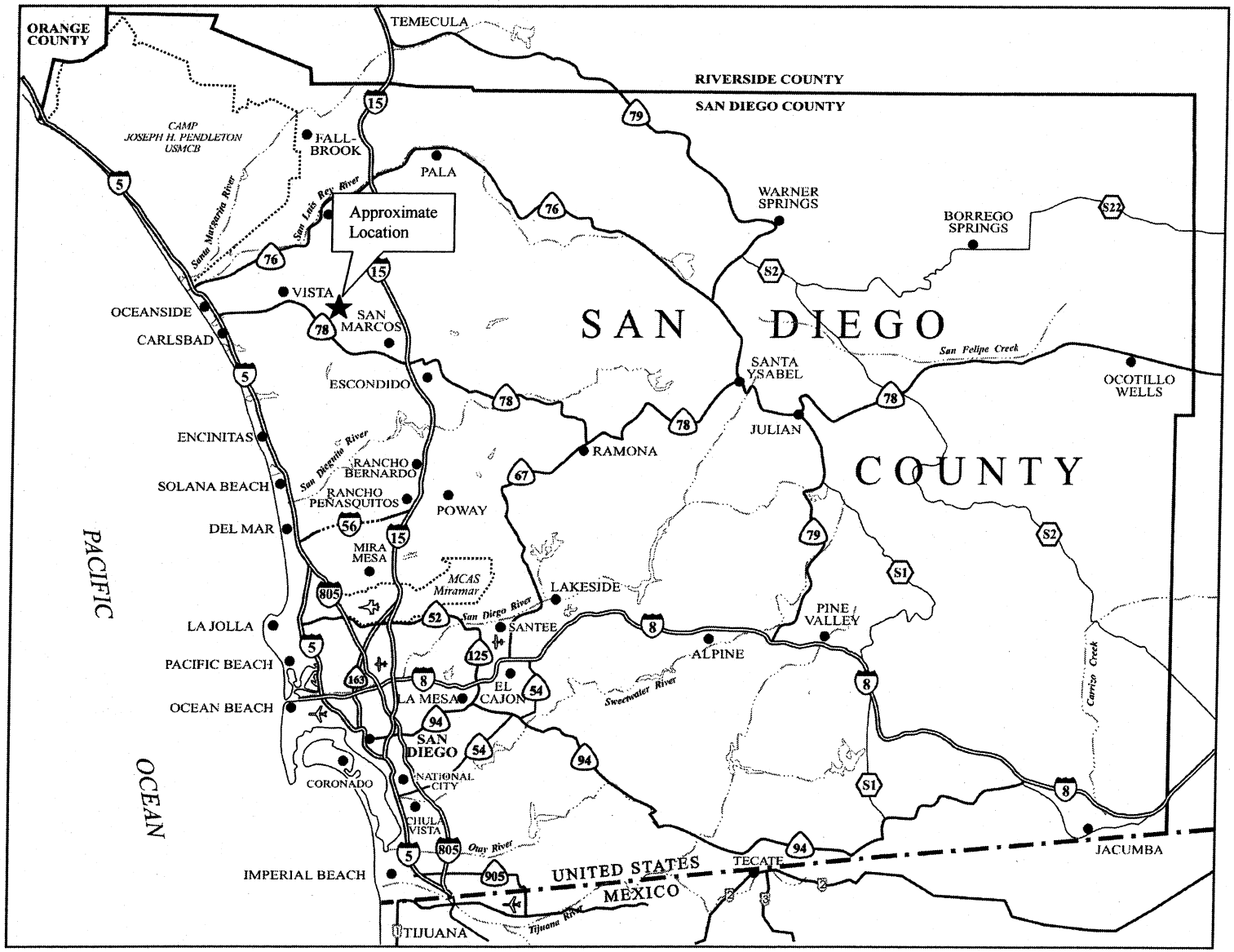
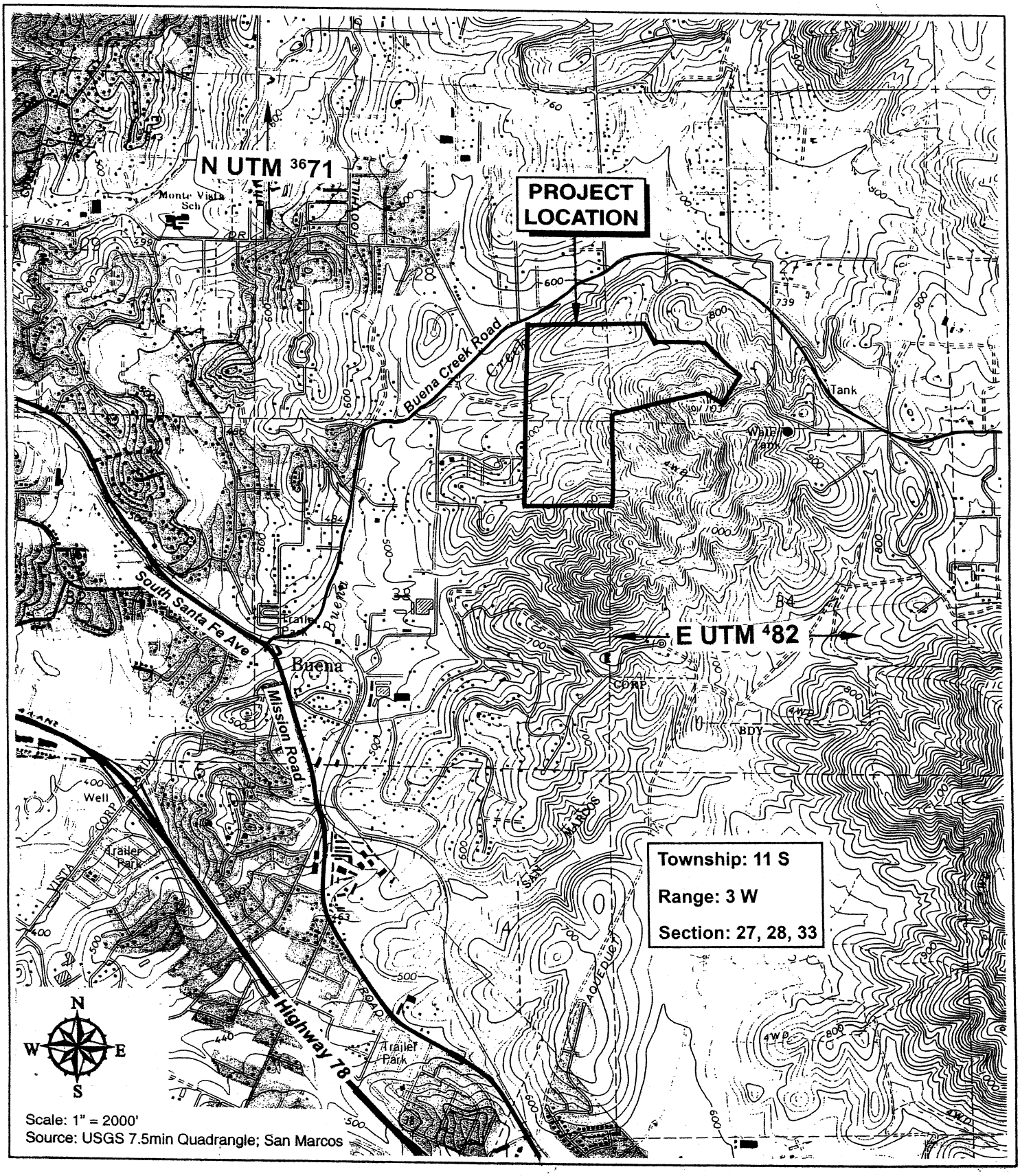


Figure 1
Regional Location Map



Project Location Map

SUGARBUSH RANCH COASTAL CALIFORNIA GNATCATCHER SURVEY

Figure 2

HELIX

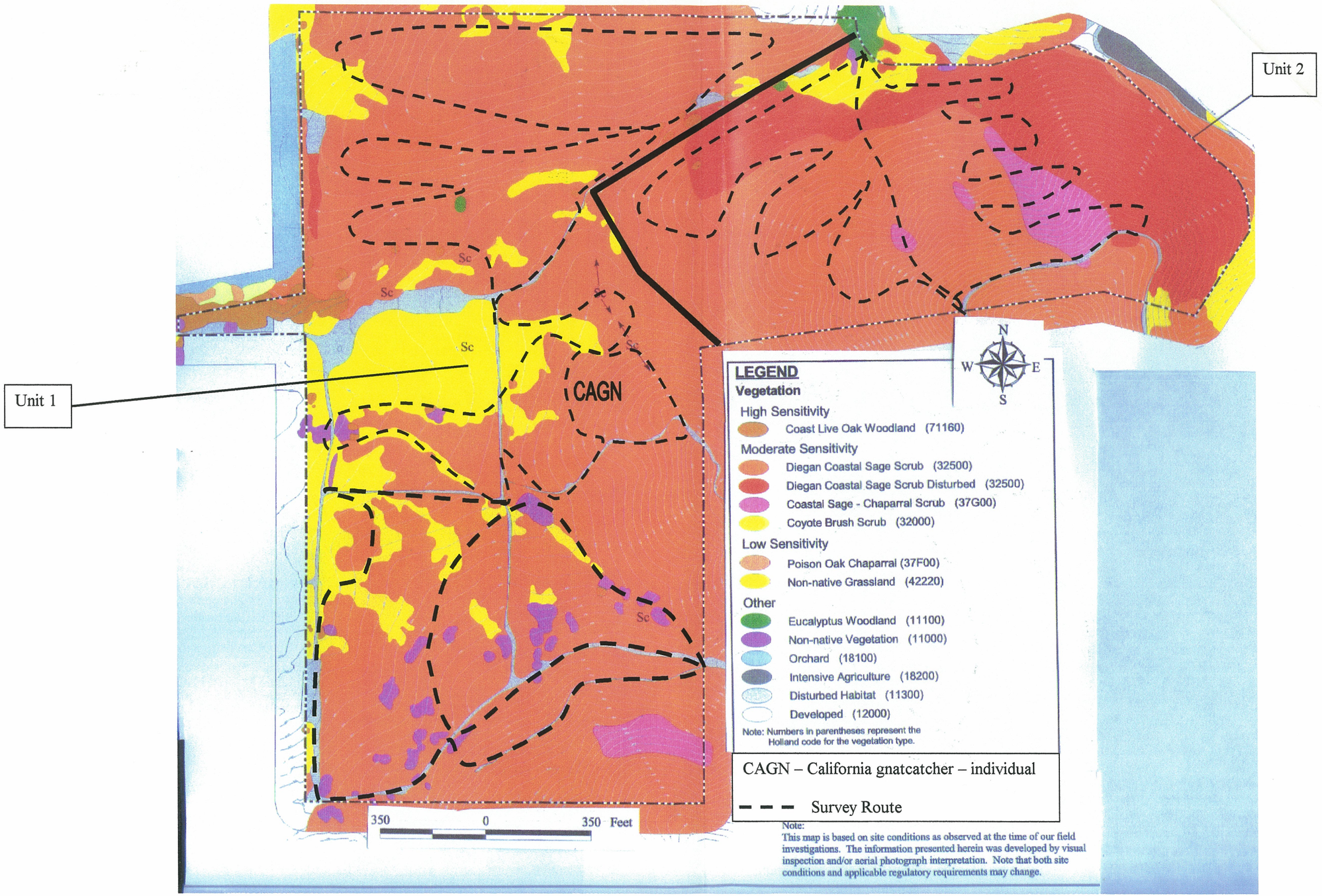
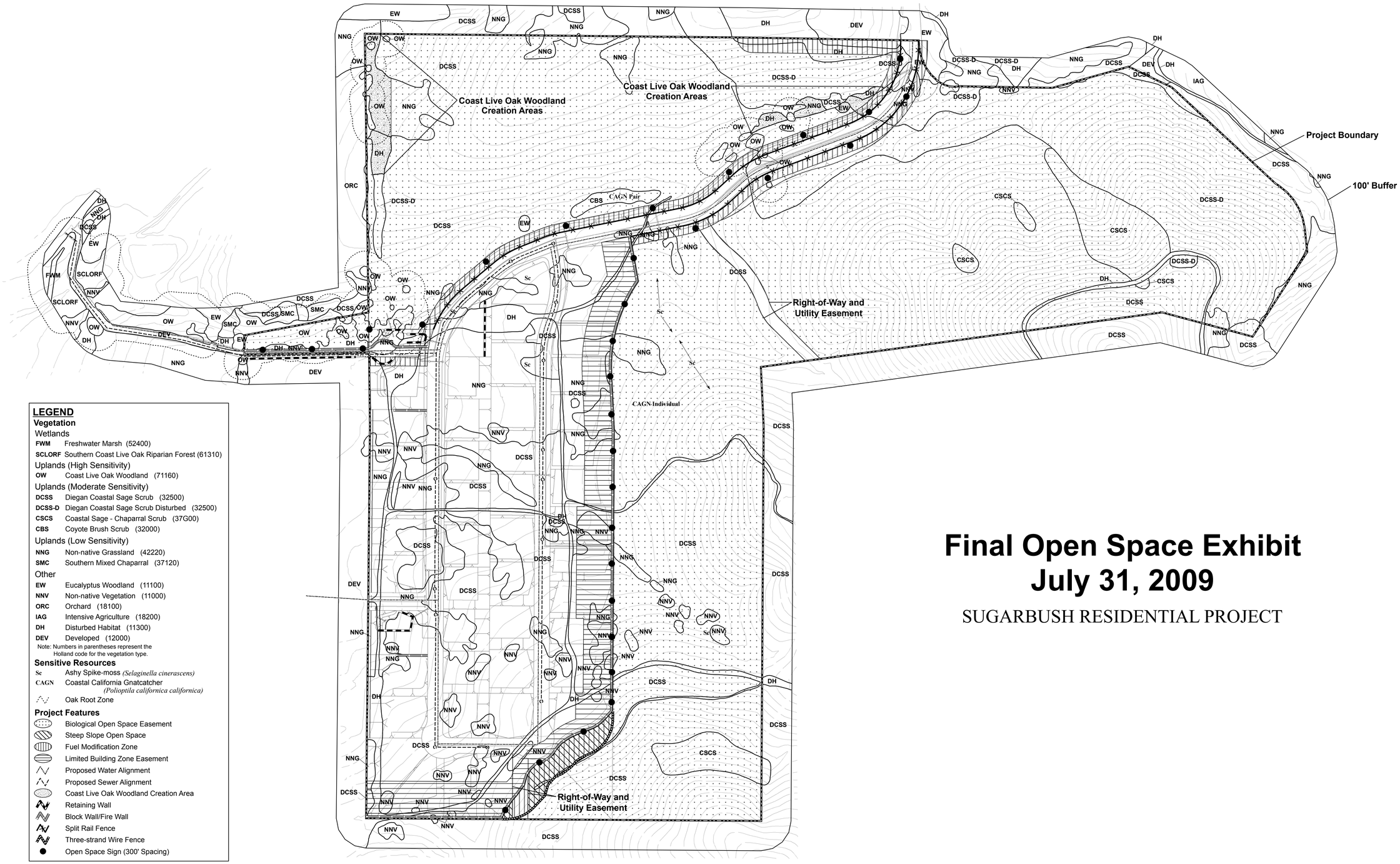


Figure 3 – Vegetation Map and California Gnatcatcher Survey Route for the Sugarbush Ranch Project (Vegetation Map provided by Helix Environmental)

APPENDIX G

FINAL OPEN SPACE EXHIBIT
(July 31, 2009)

SP03-003
TM 5295 rpl 7
S04-015



LEGEND

Vegetation

Wetlands

FWM	Freshwater Marsh (52400)
SCLORF	Southern Coast Live Oak Riparian Forest (61310)

Uplands (High Sensitivity)

OW	Coast Live Oak Woodland (71160)

Uplands (Moderate Sensitivity)

DCSS	Diegan Coastal Sage Scrub (32500)
DCSS-D	Diegan Coastal Sage Scrub Disturbed (32500)
CSCS	Coastal Sage - Chaparral Scrub (37G00)
CBS	Coyote Brush Scrub (32000)

Uplands (Low Sensitivity)

NNG	Non-native Grassland (42220)
SMC	Southern Mixed Chaparral (37120)

Other

EW	Eucalyptus Woodland (11100)
NNV	Non-native Vegetation (11000)
ORC	Orchard (18100)
IAG	Intensive Agriculture (18200)
DH	Disturbed Habitat (11300)
DEV	Developed (12000)

Note: Numbers in parentheses represent the Holland code for the vegetation type.

Sensitive Resources

Sc	Ashy Spike-moss *(Selaginella cinerascens)*
CAGN	Coastal California Gnatcatcher *(Polioptila californica californica)*
	Oak Root Zone

Project Features

- Biological Open Space Easement
- Steep Slope Open Space
- Fuel Modification Zone
- Limited Building Zone Easement
- Proposed Water Alignment
- Proposed Sewer Alignment
- Coast Live Oak Woodland Creation Area
- Retaining Wall
- Block Wall/Fire Wall
- Split Rail Fence
- Three-strand Wire Fence
- Open Space Sign (300' Spacing)

N W E S

150 75 0 150 Feet

HELIX environmental planning, inc.

Job No: BOO-07 Date: 07/30/09

Final Open Space Exhibit
July 31, 2009

SUGARBUSH RESIDENTIAL PROJECT

APPENDIX H

CONCEPTUAL HABITAT MANAGEMENT PLAN

1.0 INTRODUCTION

A Habitat Management Plan (HMP) will be prepared for the proposed Sugarbush Residential Development Project to describe the implementation of mitigation measures proposed in the biological technical report and actions necessary to maintain the value of the biological resources in perpetuity in the 77.1 acres of biological, avoidance, and steep slope open space easements on site, including details of the preservation, funding, and management actions and monitoring requirements.

2.0 PURPOSE

The purpose of the HMP is to outline the proposed management activities, stewardship requirements, adaptive management strategies and timelines of reporting necessary to maintain and enhance the habitat and related wildlife values of the biological open space areas preserved within the project site.

3.0 PROJECT DESCRIPTION

The project site is located at the southern terminus of Sugarbush Drive, between the Buena Vista and Twin Oaks communities within the County's North County Metro Community Planning Area. It is situated northeast of the City of San Marcos (City).

The project site proposes 45 residential lots with associated roads and facilities, as well as two biological open space lots. Access to the site would be via an extension to Sugarbush Drive. Project development would be focused on the southwestern corner of the project site and would impact 40.7 acres of habitat, including 0.6 acre of coast live oak woodland (0.2 acre of habitat and 0.4 acre of oak root zone), 23.3 acres of Diegan coastal sage scrub (including 1.7 acres of disturbed), and 11.1 acres of non-native grassland (10.5 due to the residential project and 0.6 due to oak woodland creation). The proposed biological, steep slope, and avoidance open space easements would preserve 77.1 acres of habitat within the project site, including habitat occupied by the federal-listed as endangered coastal California gnatcatcher (*Polioptila californica californica*).

The habitat management plant will implement the mitigation measures described in the biological technical report. These measures include:

- On-site preservation of existing habitat within the proposed open space, including 0.9 acre of coast live oak woodland, 68.3 acres of Diegan coastal sage scrub (including 13.1 acres of disturbed), 2.8 acres of coastal sage-chaparral scrub, 0.3 acre of coyote brush scrub, and 2.4 acres of non-native grassland.
- Planting of 60 to 90 coast live oaks to create 0.9 acre of coast live oak woodland in non-native grassland, eucalyptus woodland, and disturbed habitat along the main on-site drainage just north of the proposed access road and along the property boundary in the northwest of the site. As both of these areas already support coast live oaks, the creation would expand existing woodland habitat and fill in the gaps between patches. Following this oak woodland creation,

the open space would support 1.8 acres of coast live oak woodland (0.5 acre within avoidance open space, 0.4 acre of existing habitat within biological open space, and 0.9 acre created within biological open space).

- Wetland enhancement through weed removal from the Corps- and CDFG- jurisdictional drainage, including removal of castor bean (*Ricinus communis*) and fennel (*Foeniculum vulgare*).

4.0 HABITAT/RESOURCE INVENTORY AND MAPPING

Base habitat/resource inventory and mapping for the Sugarbush project site was conducted as part of the biological technical report. This analysis included general zoological and botanical surveys; vegetation mapping; a jurisdictional delineation, rare plant surveys; and focused surveys for the coastal California gnatcatcher (*Polioptila californica californica*).

5.0 RESOURCE DESCRIPTION

Ten vegetation communities occur within the Sugarbush site, as shown on Table 1 (see also Figure 4). Specifically, these include five communities considered sensitive within the County (coast live oak woodland, Diegan coastal sage scrub (including disturbed), coastal sage-chaparral scrub, coyote brush scrub, and non-native grassland), five non-sensitive communities (eucalyptus woodland, non-native vegetation, disturbed habitat, orchard, and developed) and Waters of the U.S.

A total of 68 plant and 39 animal species were observed within the site during project site surveys (included in the biological technical report as Appendices A and B, respectively). One observed plant species, ashy spike-moss (*Selaginella cinerascens*) is considered sensitive within the County, but is not federal or state listed. One federally threatened animal, coastal California gnatcatcher, and three County sensitive animals, red-shouldered hawk (*Buteo lineatus*), turkey vulture (*Cathartes aura*), and white-tailed kite (*Elanus leucurus*) were observed on site.

A local wildlife corridor, a tributary drainage to Buena Creek, occurs on site. Buena Creek has connectivity with Agua Hedionda Creek, and therefore with Agua Hedionda Lagoon, downstream. However, this potential regional corridor is significantly compromised because Buena Creek is heavily channelized and culverted as it passes through developed portions of Vista.

VEGETATION

Including habitat creation, the biological, steep slope and avoidance open space would preserve approximately 77.1 acres of habitat, including 75.6 acres of habitat considered sensitive within the County: 1.8 acres of coast live oak woodland, 68.3 acres of Diegan coastal sage scrub (including 13.1 acres of disturbed), 2.8 acre of coastal sage-chaparral scrub, 0.3 acre of coyote brush scrub, and 2.4 acres of non-native grassland (Table 2).

PLANT AND ANIMAL SPECIES

Ashy spike-moss is distributed widely through the Diegan coastal sage scrub on site. Since approximately three-fourths of the coastal sage scrub on site would be preserved, roughly the same proportion of the ashy spike-moss on site would also be preserved.

Table 1
VEGETATION COMMUNITIES
WITHIN THE PROJECT SITE*

HABITAT TYPE	ACRE(S)
Coast live oak woodland	1.0
Diegan coastal sage scrub	91.3
Coastal sage-chaparral scrub	2.8
Coyote brush scrub	0.3
Non-native grassland	13.5
Eucalyptus woodland	0.2
Non-native vegetation	2.0
Disturbed habitat	4.1
Orchard	0.1
Developed	0.2
TOTAL SITE AREA	**115.5**

*Prior to project development

Table 2
VEGETATION COMMUNITIES PRESERVED WITHIN
THE SUGARBUSH OPEN SPACE

HABITAT TYPES	ACREAGE PRESERVED
Sensitive Habitats	
Coast live oak woodland	1.8
Diegan coastal sage scrub (including disturbed)	68.3
Coastal sage-chaparral scrub	2.8
Coyote brush scrub	0.3
Non-native grassland	2.4
Subtotal Sensitive Habitats	**75.6**
Non-sensitive Habitats	
Eucalyptus woodland	0.1
Non-native vegetation	0.3
Disturbed habitat	1.0
Orchard	0.1
Developed	0.0
Subtotal Non-sensitive Habitats	**1.5**
TOTAL	**76.4**

*Total coast live oak woodland to be preserved includes 0.5 acre existing within avoidance open space, 0.4 existing within biological open space, and 0.9 to be created within biological open space.

Of the four listed or sensitive animals observed during biological surveys of the Sugarbush site, only the coastal California gnatcatcher was mapped within the biological open space. The red-shouldered hawk, turkey vulture, and white-tailed kite were observed flying overhead and are likely to use the project site for foraging but not for nesting.

6.0 ADMINISTRATIVE STRUCTURE

The project applicant will contract a Habitat Manager, who will coordinate with the County as appropriate on issues, concerns, and questions related to the HMP. The applicant is in discussion with the HELIX Community Conservancy with regard to managing the biological open space.

7.0 RESPONSIBILITY

The HMP will outline the parties responsible for funding, habitat creation and restoration, and preserve maintenance and management.

8.0 HABITAT RESTORATION AND MONITORING

Project related impacts to sensitive habitats and species would be mitigated through a combination of on-site habitat creation, restoration and preservation in the biological open space.

Creation of 0.9 acre of coast live oak woodland to the north of the main on-site drainage would be achieved through planting of between 60 to 90 coast live oak trees. The creation area is located within existing patches of non-native grassland along the main on-site drainage, which runs just north of the proposed access road, or immediately east of where the entry access road turns west and should be well suited to support an oak woodland. Maintenance of the oak woodland creation area would include trash and weed removal as well as replacement of any dead trees.

Restoration will occur within the drainage through removal of all noxious weeds, including, but not limited to castor bean and fennel. Additionally, all olive trees remaining within the biological open space, particularly in the southeastern portion of the Sugarbush property will be removed at the direction of the open space manager.

9.0 MANAGEMENT SPECIFICATIONS FOR OPEN SPACE AREAS

The HMP will set up the framework for the habitat preservation, the creation of coast live oak woodland, and the restoration of jurisdictional areas proposed in the biological technical report. It will describe methods for biological monitoring, which will include habitat monitoring, exotic species control, fire/flood management, maintenance of fencing and signage, and preparation of monitoring reports.

10.0 MANAGEMENT IN AREAS ADJACENT TO OPEN SPACE

Development areas adjacent to the preserve will be evaluated in the HMP to assess potential indirect effects to open space resources. Management efforts will include, but not be limited to fencing and signage along the open space boundary, use of appropriate lighting to reduce illumination of the open space, and erosion/sedimentation control from manufactured slopes. A program will be implemented through the project Homeowners' Association will be established to educate residents of the sensitivity of the resources in the biological open space, basic stewardship, and to identify prohibited and allowed activities in the open space.